

Winter fish kill

Conservation Conversation

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Recently a hiker reported to the Conservation Office that a large number of dead fish were observed floating in the water alongside the North Hill Marsh dam. Whoever left the message was a hardy individual because the trails there were so icy and dangerous that it took us a few days to check out the situation. What we found was staggering.

We began counting floating fish at the end of the dam bordering the North Hill Golf Course. We saw dead bluegills, largemouth bass, perch and even hornpout, one of the hardiest fish in our fresh waters. By the time we had reached the old cranberry bog water pumps at the western end, the number of fish we had found was well over one thousand not even counting the vague shapes of many fish still frozen in the ice several feet out from the dam.

There was a faint smell around the dam that we thought might have been sewage, so we walked both sides of the waterway leading up to the dam on the off chance an old covered septic tank or sewer might have finally begun leaking and caused the smell and the kill. Although years ago there had been two houses, one at each end of an earlier and now submerged dam, we found no evidence of septic leaks as we poked through the brush at both ends of the old earthen dam now covered by water backed up from the more recent Merry dam.

(As an interesting side note, that old sunken dam was once an actual road, an extension of what is now the red blazed trail leading down from green blazed Waiting Hill Trail. It was a town road to the house on the golf course side and came in off Lincoln Street near the cell tower.) The fish kill was concerning and we decided to contact State Fisheries experts. The first step was visiting their website which had a helpful search engine. We entered 'Fish Kill' and learned in seconds what had caused all the dead fish floating beside the dam. Here's what we found: 'Winter Fish Kills— "During the winter, thick ice and heavy snow cover can result in low dissolved oxygen levels in ponds. Increasing ice and snow packs limit light penetration through the water column, altering chemical and biological processes such as photosynthesis and the decomposition of organic matter (dead plants). These conditions can frequently result in a winter fish kill. Shallow, weedy ponds of 25-30 feet in depth are particularly vulnerable. MassWildlife fisheries biologists routinely find low dissolved oxygen levels in ponds statewide during these kinds of conditions. Reports of strong 'rotten egg' odors are generally the first clue that a waterbody is experiencing anoxia. The odor is hydrogen sulfide gas which is a natural by-product occurring in lakes and ponds with low amounts of dissolved oxygen. This condition is natural and rarely the result of pollution such as illegal dumping, sewage or a chemical spill. Oxygen levels become fully restored when the ice melts in the spring. It is at this point that winter fish kills often become visible to the public in the form of dead fish on the bottom of the pond or floating at the surface.'

Mass Fisheries' concise information described all the conditions North Hill Marsh experienced

this late winter including the relatively shallow water there. It not only explained the fish kill but also the slight 'sewage' odor we had noticed. Fish Kill solved!

In unrelated 'fish' news, the time is drawing near for our annual herring return and count. It is drawing near as far as the calendar is concerned . . . but unfortunately the water temperature is not cooperating. Herring need water to be pretty close to 50 degrees in order to begin their run up the various herring runs on the South Shore. The first runs happen in the Buzzards Bay area and when we get word herring have been seen there we begin watching closely here. But with Duxbury Bay's water temperature presently at around thirty degrees we're not holding our breath. When they do start running however, Conservation will be looking for volunteers to watch and count again. If you'd like to volunteer just send an email to donovansteve568@gmail.com and I'll let you know when we will begin, where you should count and how to record any herring you see. We don't assign times and instead suggest that you watch for a minimum of fifteen minutes to a half hour any time of the day it is convenient. Sound interesting? Send an email.



These fish didn't survive the winter.

